

ABSTRACT OF DISCLOSURE

A power supply apparatus for a motor including an AC power supply, a diode rectifier circuit to rectify power of the AC power supply and a DC capacitor to smooth the rectified power, comprising a current limiting part provided between the AC power supply and the DC capacitor; a connection switching part to switch a connection state of the diode rectifier circuit and the current limiting part; a controller to control the connection switching part so that the diode rectifier circuit and the current limiting part are connected to each other one of in parallel and in series. Thus, an inrush current protection circuit and an over voltage protection circuit use a single resistor according to their respective functions.